



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,721	10/09/2001	Jian Zhou	M-11928 US	7841
34036	7590	12/08/2004	EXAMINER	
SILICON VALLEY PATENT GROUP LLP 2350 MISSION COLLEGE BOULEVARD SUITE 360 SANTA CLARA, CA 95054			SIANGCHIN, KEVIN	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/974,721	ZHOU ET AL.	
	Examiner	Art Unit	
	Kevin Siangchin	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Detailed Action

Claims

Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).
2. Misnumbered Claims 16-24 been renumbered 15-23.

Election/Restriction

3. Restriction to one of the following inventions is required under 35 U.S.C. 121¹:

Invention I: Claims 1-8, 9-16, and 22 (originally numbered 1-8, 9-14, 16, and 23), drawn to a method for forming a recipe for de-skewing wafers, classified in Class 382, Subclass 151.

Invention II: Claims 17 and 23 (originally numbered 18 and 24), drawn to a method for de-skewing wafers, classified in Class 382, Subclass 151.

Invention III: Claims 18-21 (originally numbered 19-22), drawn to a recipe for de-skewing wafers, classified in Class 438, Subclass 4.

¹ Note that the claims will be referred according to the numbering suggested above.

4. Invention II and Invention III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)).

5. In the instant case, the combination – i.e. Invention II – as claimed does not require the particulars of the subcombinations – i.e. Inventions I and III. Invention II comprises finding a match with a plurality of patterns in a recipe. The recipe used by Invention II is constrained to be one that includes a first set of coordinates of the de-skew site and each of the plurality of patterns, contained therein, is a pattern of the de-skew site at a different layer. Invention II, directed toward a recipe for de-skewing wafers, comprises a plurality of patterns, including a first pattern at the de-skew site of a first wafer layer and a second pattern at the de-skew site of a second wafer layer. However, Invention II, as claimed, does not provide any sets of coordinates of the de-skew site, as required by Invention II. Furthermore, it should be clear that any recipe containing a plurality of patterns, each corresponding to the de-skew site at a respectively different layer, would sufficiently satisfy the requirements of claimed Invention II².

6. Invention III can be used as an “inspection recipe” in any other semiconductor inspection/fabrication device or method that would require stored patterns of multiple layers of a semiconductor wafer. Therefore, Invention III has utility separate from the disclosed combination (Invention II).

7. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)).

8. Invention I, as claimed, is a process (method) for forming a recipe for de-skewing. Invention III, as a recipe for de-skewing wafers, represents a product of that process. In the instant case, Invention III can clearly be produced

² While Invention II requires a recipe containing a plurality of patterns of a plurality of layers, Invention III specifies a first pattern and a second pattern of a first layer and a second layer, respectively. Clearly then, the requirements of the recipe utilized in claimed Invention II are a broader recitation of the characteristics set forth in Invention III. See MPEP 806.05(c).

Art Unit: 2623

by another method. For example, a skilled practitioner could “manually” construct recipes, like Invention III, by simply adding patterns according to their expertise.

9. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. See MPEP § 806.05(d).
10. Invention II utilizes a recipe containing a plurality of patterns of semiconductor layers. Invention I is method for forming such recipes. However, the recipes used in Invention II need not be those formed according to Invention I. The recipes used in Invention II require only a plurality of patterns of wafer layers (and the aforementioned coordinates). The method of forming these recipes is inconsequential with respect to Invention II. Thus, in the instant case, Invention II has separate utility as method for de-skewing wafers, whereas, Invention I has separate utility as a method for forming recipes for de-skewing wafers.

11. Because these inventions are distinct for the reasons given above and
1. The search required for Invention I is not required for Invention II.
 2. The search required for Invention I is not required for Invention III.
 3. The search required for Invention II is not required for Invention III.

restriction for examination purposes as indicated is proper.

12. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Siangchin whose telephone number is (703)305-7569. The examiner can normally be reached on 9:00am - 5:30pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2623


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Siangchin



Examiner
Art Unit 2623

ks - 12/6/04 12:48 PM



AMELIA W. AU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600